

United States Department of the Interior

GEOLOGICAL SURVEY

U-0126938

Office of the Area Mining Supervisor
Conservation Division
8426 Federal Building
125 South State Street
Salt Lake City, Utah 84138

October 5, 1977

Mr. Cleon Feight
Division of Oil, Gas, and Mining
State of Utah
1588 West North Temple
Salt Lake City, Utah 84116

Dear Mr. Feight:

American Gilsonite Company, Bonanza, Utah, has submitted a mining plan to continue mining on the Little Emma vein approximately 5 miles west and 1 mile south of Bonanza, Utah. It is currently mining on private holdings just east of Federal Gilsonite lease U-0126938 and plans to continue westward onto the leasehold as soon as approval can be granted.

Earlier this spring, an onsite inspection was conducted by this office and the BLM on the leasehold to evaluate a drilling program in connection with the mining plan. At that time, we correlated the access road layout for drilling to correspond as well as possible with the proposed mining needs and as a result, do not at this time plan another onsite inspection of the property.

You will recall that on January 5, 1977, a similar mining plan proposal was jointly inspected on American Gilsonite Company's Wagonhound vein in which Messrs. Daniels and Buck of your office attended.

Should you need additional information on this proposal, please contact me.

Sincerely yours,

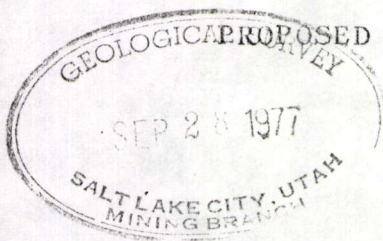
Allen L. Vance

Allen L. Vance
Mining Engineer

Enclosures:
Mine plan



AMERICAN GILSONITE COMPANY



PROPOSED MINING FOR THE LITTLE EMMA GILSONITE VEIN

FEDERAL LEASE U-126938

GENERAL

Lease U-126938 is located in the NE $\frac{1}{4}$ Section 25, T9S, R23E, and the W $\frac{1}{2}$ Section 30, T9S, R24E.

Total relief of this lease is not over 250 feet, with the lowest portion (5220 feet above sealevel) on the northwestern border and the highest (5438 feet above sea level) on the eastern border.

The plant life in the lease area consists of sparse sagebrush and saltbrush with some greasewood in the wash bottoms. Sparse range grasses are found on the slopes along with a few cacti.

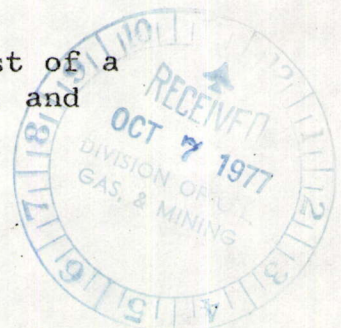
The animal life is mostly transient types, with indications of rabbit, deer, antelop, coyote, hawk, owl, and various species of mice. The land is also used for sheep grazing in the winter months. Due to the lack of permanent water in this area the animal life is scarce.

The area is accessible from the east and west by dirt roads and on the north by the pipeline access road. The landforms are steeply walled canyons and flat topped ridges. A large wash passing by the proposed site of LE-5 drains a watershed area of about 127,000 acres.

SURFACE FACILITIES

At each site on this lease, mine surface facilities would consist of a derrick with a 20 x 20 foot base and a height of 77 feet with a storage bin on one side; a hoist house with a 20 x 15 foot base, located approximately 100 feet from the derrick; a timberyard occupying not over 900 square feet; and a compressor (usually housed in a building, no larger than 20 x 15 feet) with an external receiving tank. Conduit and piping runs along (or under) the ground between the hoist house, compressor, and derrick. Additional surface facilities may include a booster fan installation to aid in the airlifting of ore. Also, outhouse type latrine facilities will be provided at each site.

Surface disturbance at each site would consist of a relatively flat area for the derrick, bin, hoist house, and



surrounding facilities. This will call for some cut and fill work, most notably at the site of LE-6

Main access roads will be 24 feet wide and loop roads around the mine sites will be about 12 feet wide. Dip type crossings will be used at all washes as rain is seasonal and runoff fairly fast. All roads will have to be graded so that hills do not exceed an eight percent grade and all turns must have a minimum radius of 90 feet. Barrow ditches will be provided along the sides, and cattle guards installed at all fence crossings on the lease.

Electrical power would be provided by extending the power line from LE-4 along the north side of the vein to LE-8 with a dogleg to the hoist facilities of LE-5.

There is a very good chance that groundwater will be encountered in the mining of this vein. This water will be discharged into natural drainage in accordance with EPA regulations. Ponding may be required prior to discharge.

Federal mine regulations concerning the location of inflammables, construction materials, keeping weeds from around the mine shaft, and not allowing matches, smoking, or other ignition sources in the mine will be followed.

Hazards to public health and safety will be prevented by fencing off shaft areas and covering openings with concrete caps upon completion of mining.

MINING METHODS

The gilsonite vein in this area strikes N66W with a dip of 2°S and ranges in width from four inches on the surface (where located) to 2.3 feet at a depth of 400 feet on the eastern end of the lease. A drilling program submitted May 1977 to the USGS and approved in June 1977 will most likely be carried out early in 1978 to prove reserves farther west (LE-6 and LE-8).

Mining will be done using a method of open stopes with timbered floors spaced thirty feet apart (top floor six feet below pillar) in panels approximately 300 x 250 feet. There will be six panels in each mine, three on each side of the shaft, with about a 25 foot pillar of ore between panels.

Equipment used in the mining operations consists of hand operated pneumatic rock picks to break the ore at the face. The ore is then gravity fed down the slope. It is picked up at the bottom with an airlift which transports the ore pneumatically

to a storage bin on the surface. In some cases, a slusher is used to bring the broken ore to the shaft, where it is hoisted to the surface in a skip.

MINING SEQUENCE

Mining will begin at LE-5 upon completion of LE-3, and proceed toward LE-8. It is expected that mining will be conducted such that two mines will be in production at one time, with possible development of a third as the first one nears completion. Availability of equipment will be an important factor in determining the rate of mining. It should be noted that LE-5 will be situated over an old shaft for which no records exist. However, it is believed that not much mining was done from this shaft.

Experience has indicated that set up time for a new mine is generally three months and development time is figured on a scale of 30 feet per month advancement in rock, and 85 feet per month in minable ore.

No increase in manpower is anticipated in the development or mining of this lease.

RECLAMATION

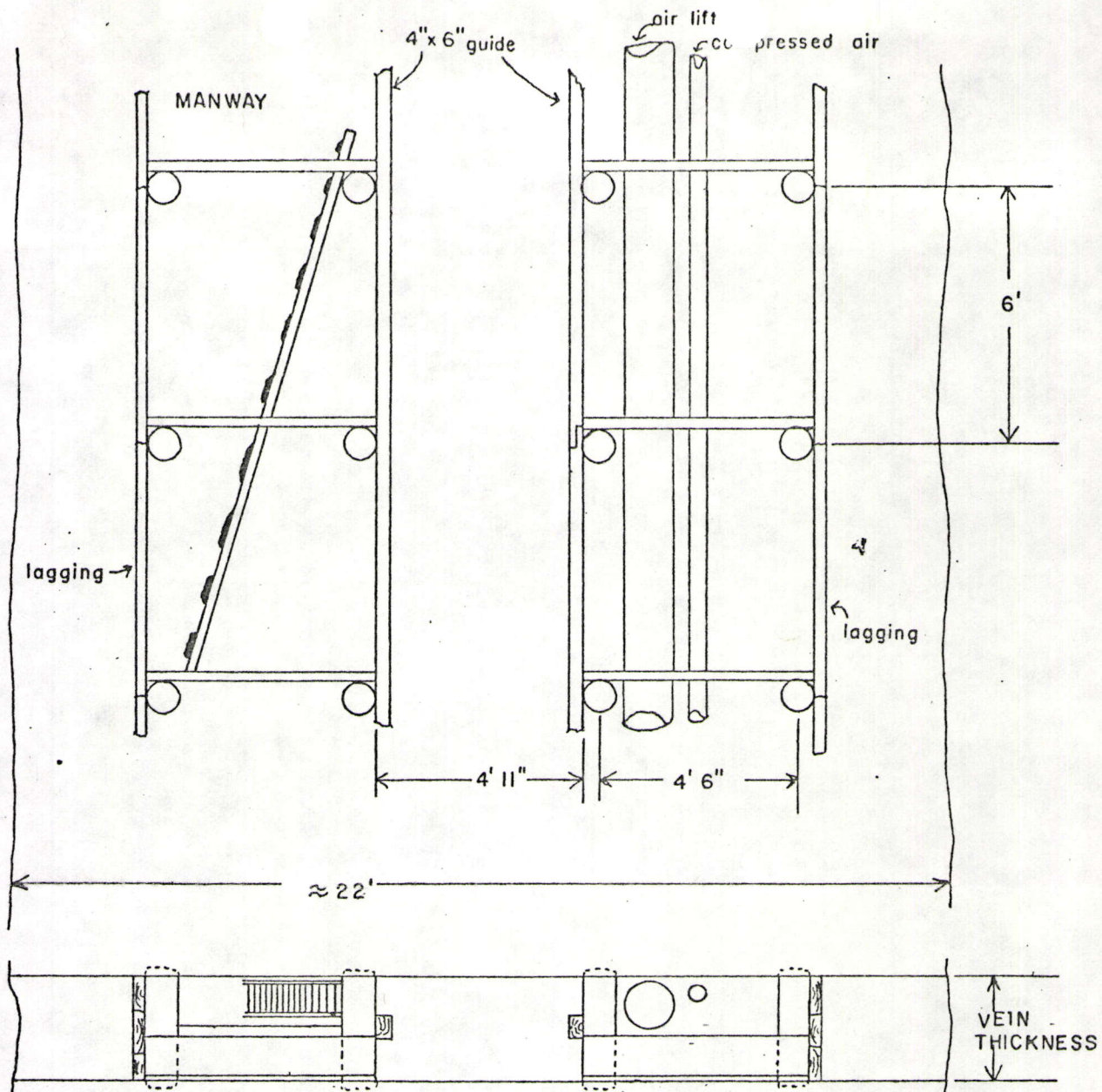
Reclamation would begin as soon as the site is entered by stockpiling topsoil in a safe, out of the way location.

At the end of the mine life, all surface facilities and scrap will be removed within a two month period. The shafts will be capped with a reinforced concrete slab at least 12 inches thick with $\frac{1}{2}$ inch diameter steel reinforcing rod on 12 inch centers in a cross pattern one third of the distance from the bottom of the slab. This slab will extend at least 12 inches beyond the opening in all directions.

Landforms will be recontoured to match the surrounding terrain and designed to control erosion during the regrowth period. A program of reseeding will be carried out in conjunction with the BLM to assure the best possible results.

ARCHEOLOGICAL

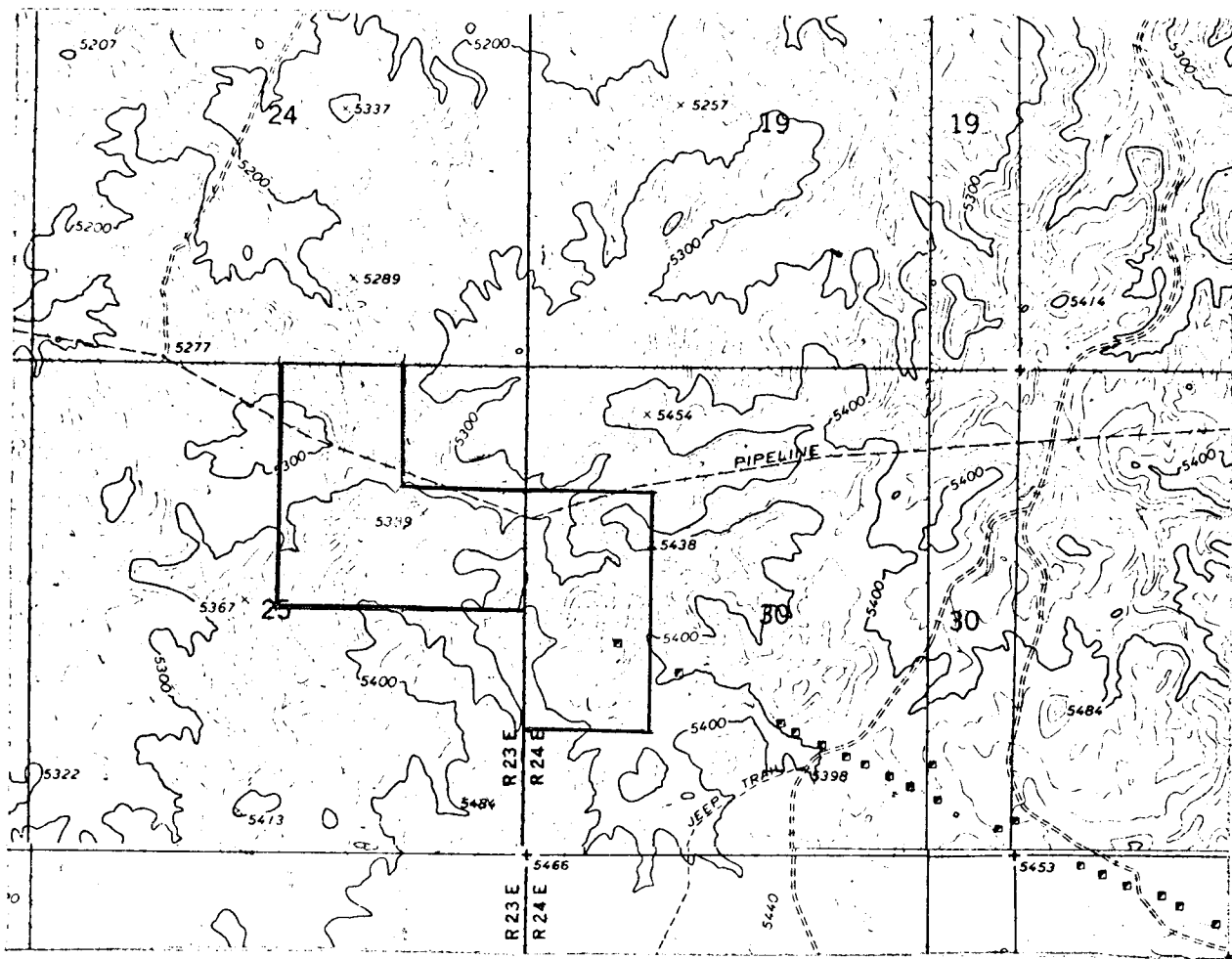
An archeological survey was performed on this lease in May of 1977. Both vein and access roads have been investigated and cleared with the understanding that if antiquities are unearthed in the course of development, the BLM Vernal office and the USGS Salt Lake City office will be notified.



SHAFT TIMBERING TECHNIQUE

AMERICAN GILSONITE COMPANY

BONANZA, UTAH



MAP SHOWING LEASE LOCATION ON
USGS TOPOGRAPHIC SERIES (ENLARGED)
RED WASH SE QUADRANGLE